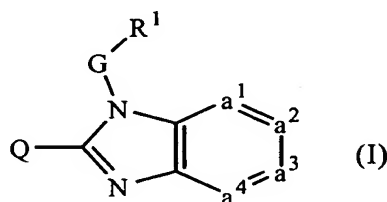


This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (*currently amended*) A compound of formula



~~a-prodrug~~, an addition salt, or stereochemically isomeric form thereof wherein

$-a^1=a^2-a^3=a^4-$ represents a bivalent radical of formula

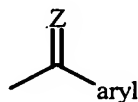
$-N=CH-CH=CH-$ (a-2);

~~$-CH=N-CH=CH-$~~ (a-3);

~~$-CH=CH-N=CH-$~~ (a-4); or

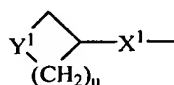
~~$-CH=CH-CH=N-$~~ (a-5);

wherein each hydrogen atom in the ~~radicals~~ radical (a-2), ~~(a-3)~~, ~~(a-4)~~ and ~~(a-5)~~ may optionally be replaced by halo, C₁₋₆alkyl, nitro, amino, hydroxy, C₁₋₆alkyloxy, polyhaloC₁₋₆alkyl, carboxyl, aminoC₁₋₆alkyl, mono- or di(C₁₋₄alkyl)aminoC₁₋₆alkyl, C₁₋₆alkyloxycarbonyl, hydroxyC₁₋₆alkyl, or a radical of formula

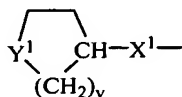


wherein Z is O, CH-C(=O)-NR^{5a}R^{5b}, CH₂, CH-C₁₋₆alkyl, N-OH or N-O-C₁₋₆alkyl;

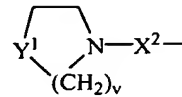
Q is a radical of formula



(b-4)



(b-5)



(b-6)

wherein

Y^1 is a bivalent radical of formula $-NR^2-$ or $-CH(NR^2R^4)-$;

X^1 is NR^4 , S, $S(=O)$, $S(=O)_2$, O, CH_2 , $C(=O)$, $C(=CH_2)$, $CH(OH)$, $CH(CH_3)$, $CH(OCH_3)$, $CH(SCH_3)$, $CH(NR^{5a}R^{5b})$, CH_2-NR^4 or NR^4-CH_2 ;

X^2 is a direct bond, CH_2 , $C(=O)$, NR^4 , $C_{1-4}alkyl-NR^4$, $NR^4-C_{1-4}alkyl$;

u is 2 or 3;

v is 2; and

whereby each hydrogen atom in the carbocycles and the heterocycles defined in radicals (b-4), (b-5), and (b-6) may optionally be replaced by R^3 ; with the proviso that when R^3 is hydroxy or $C_{1-6}alkyloxy$, then R^3 can not replace a hydrogen atom in the α position relative to a nitrogen atom;

G is $C_{1-10}alkanediyl$ substituted with one or more hydroxy, $C_{1-6}alkyloxy$, $arylC_{1-6}alkyloxy$, $C_{1-6}alkylthio$, $arylC_{1-6}alkylthio$, $HO(-CH_2-CH_2-O)_n$, $C_{1-6}alkyloxy(-CH_2-CH_2-O)_n$ or $arylC_{1-6}alkyloxy(-CH_2-CH_2-O)_n$;

R^1 is a monocyclic heterocycle or aryl; said heterocycle being selected from piperidinyl, piperazinyl, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, tetrahydrofuranyl, thienyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, isothiazolyl, pyrazolyl, isoxazolyl, oxadiazolyl; and each heterocycle may optionally be substituted with 1 or where possible more substituents selected from halo, hydroxy, amino, cyano, carboxy, $C_{1-6}alkyl$, $C_{1-6}alkyloxy$, $C_{1-6}alkylthio$, $C_{1-6}alkyloxyC_{1-6}alkyl$, aryl, $arylC_{1-6}alkyl$, $arylC_{1-6}alkyloxy$, $hydroxyC_{1-6}alkyl$, mono- or di($C_{1-6}alkyl$)amino, mono- or di($C_{1-6}alkyl$)amino $C_{1-6}alkyl$, polyhalo $C_{1-6}alkyl$, $C_{1-6}alkylcarbonylamino$, $C_{1-6}alkyl-SO_2-NR^{5c}$, $aryl-SO_2-NR^{5c}$, $C_{1-6}alkyloxycarbonyl$, $-C(=O)-NR^{5c}R^{5d}$, $HO(-CH_2-CH_2-O)_n$, halo($-CH_2-CH_2-O)_n$, $C_{1-6}alkyloxy(-CH_2-CH_2-O)_n$, $arylC_{1-6}alkyloxy(-CH_2-CH_2-O)_n$ and mono- or di($C_{1-6}alkyl$)amino($-CH_2-CH_2-O)_n$;

each n independently is 1, 2, 3 or 4;

R^2 is hydrogen, formyl, $C_{1-6}alkylcarbonyl$, Hetcarbonyl, pyrrolidinyl, piperidinyl, homopiperidinyl, $C_{3-7}cycloalkyl$ substituted with $N(R^6)_2$, or $C_{1-10}alkyl$ substituted with $N(R^6)_2$ and optionally with a second, third or fourth substituent

selected from amino, hydroxy, C₃₋₇cycloalkyl, C₂₋₅alkanediyl, piperidinyl, mono-or di(C₁₋₆alkyl)amino, C₁₋₆alkyloxycarbonylamino, aryl and aryloxy;

R³ is hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkyloxy, arylC₁₋₆alkyl or arylC₁₋₆alkyloxy;

R⁴ is hydrogen, C₁₋₆alkyl or arylC₁₋₆alkyl;

R^{5a}, R^{5b}, R^{5c} and R^{5d} each independently are hydrogen or C₁₋₆alkyl; or

R^{5a} and R^{5b}, or R^{5c} and R^{5d} taken together form a bivalent radical of formula -(CH₂)_s- wherein s is 4 or 5;

R⁶ is hydrogen, C₁₋₄alkyl, formyl, hydroxyC₁₋₆alkyl, C₁₋₆alkylcarbonyl or C₁₋₆alkyloxycarbonyl;

aryl is phenyl or phenyl substituted with 1 or more-substituents selected from halo, hydroxy, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, polyhaloC₁₋₆alkyl, and C₁₋₆alkyloxy; and

Het is pyridyl, pyrimidinyl, pyrazinyl, or pyridazinyl.

2. *(cancelled)*

3. *(previously presented)* A compound according to claim 1, wherein R¹ is phenyl optionally substituted with halo, C₁₋₆alkyl or C₁₋₄alkyloxy; or pyridyl optionally substituted with 1 or more substituents selected from arylC₁₋₆alkyloxy, C₁₋₆alkyloxyC₁₋₆alkyl, aryl, mono-or di(C₁₋₆alkyl)amino, C(=O)-NR^{5c}R^{5d}, halo or C₁₋₆alkyl.

4. *(previously presented)* A compound according to claim 1, wherein G is C₁₋₄alkanediyl substituted with hydroxy, C₁₋₆alkyloxy, HO(-CH₂-CH₂-O)_n-, C₁₋₆alkyloxy(-CH₂-CH₂-O)_n- or arylC₁₋₆alkyloxy(-CH₂-CH₂-O)_n-.

5. *(previously presented)* A compound according to claim 1, wherein Q is a radical of formula (b-5) wherein v is 2 and Y¹ is -NR²-.

6. *(previously presented)* A compound according to claim 1, wherein X¹ is NH or CH₂.

DOCKET NO.: JANS-0042 (JAB-1499 US DIV)
Application No.: 10/817,472
Office Action Dated: January 17, 2006

PATENT

7. *(previously presented)* A compound according to claim 1, wherein R² is hydrogen or C₁₋₁₀alkyl substituted with NHR⁶ wherein R⁶ is hydrogen or C₁₋₆alkyloxycarbonyl.

8. *(cancelled)*

9. *(currently amended)* A method of treating a respiratory syncytial viral infection, comprising the step of administering a therapeutically effective amount of a compound as claimed in any one of claims 1, 3 to 7.

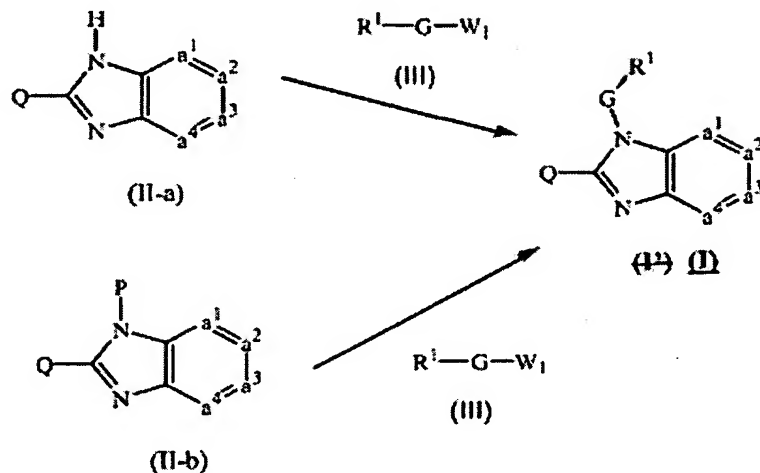
10. *(currently amended)* A pharmaceutical composition, comprising a pharmaceutically acceptable carrier, and as active ingredient a therapeutically effective amount of a compound as claimed in any one of claims 1, 3 to 7.

11. *(previously presented)* A process of preparing a composition as claimed in claim 10, comprising the step of intimately mixing said carrier with said compound.

Claims 12 to 14 *(cancelled)*

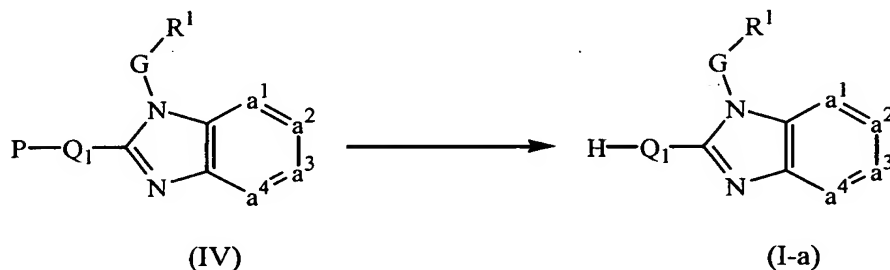
15. *(currently amended)* A process of preparing a compound as claimed in claim 1, comprising at least one step selected from the group consisting of:

- a) reacting an intermediate of formula (II-a) or (II-b) with an intermediate of formula (III)



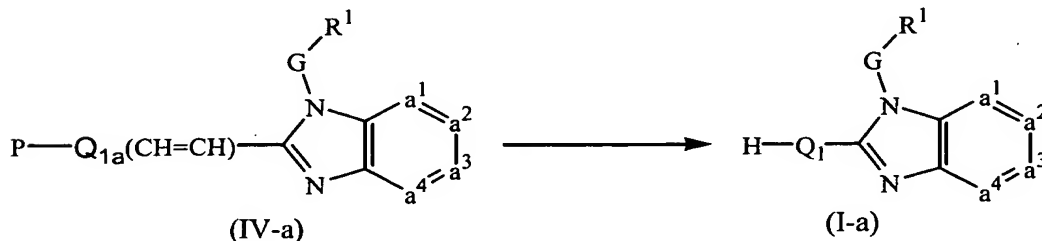
with R¹, G, Q and -a¹=a²-a³=a⁴- defined as in claim 1, and W₁ being a leaving group, in the presence of a base and in a reaction-inert solvent;

- b) deprotecting an intermediate of formula (IV)



with R¹, G, and -a¹=a²-a³=a⁴- defined as in claim 1, H-Q₁ being defined as Q according to claim 1 provided that R² or at least one R⁶ substituent is hydrogen, and P being a protective group;

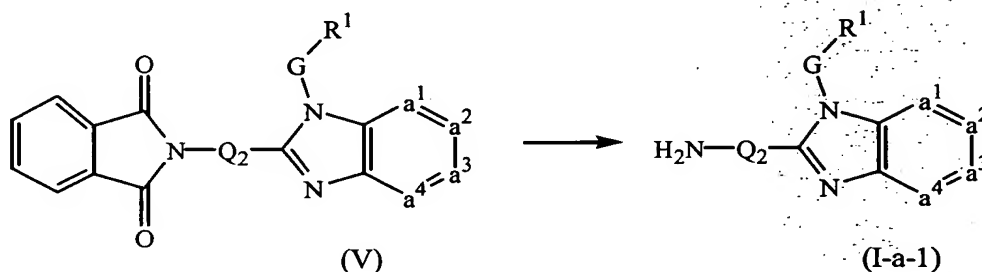
- c) deprotecting and reducing an intermediate of formula (IV-a)



with R¹, G, and -a¹=a²-a³=a⁴- defined as in claim 1, H-Q₁ being defined as Q according to claim 1 provided that R² or at least one R⁶ substituent is

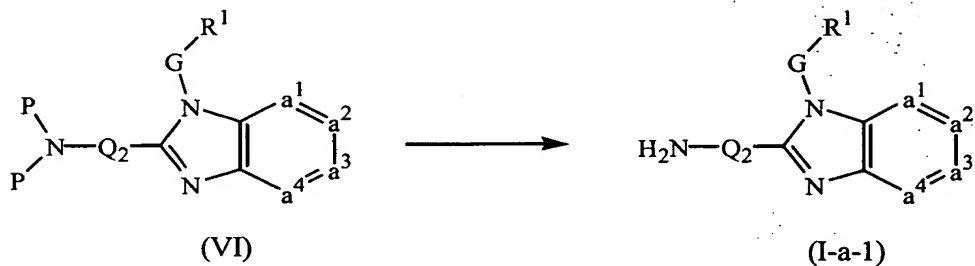
hydrogen, $Q_{1a}(\text{CH}=\text{CH})$ being defined as Q_1 provided that Q_1 comprises an unsaturated bond, and P being a protective group;

- d) deprotecting an intermediate of formula (V)



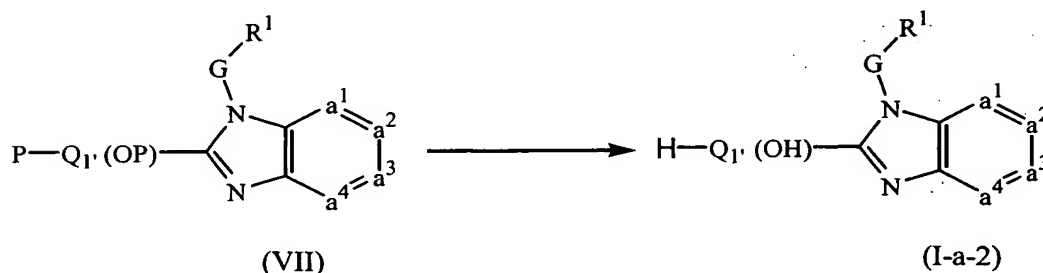
with R^1 , G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $\text{H}_2\text{N}-Q_2$ being defined as Q according to claim 1 provided that both R^6 substituents are hydrogen or R^2 and R^4 are both hydrogen;

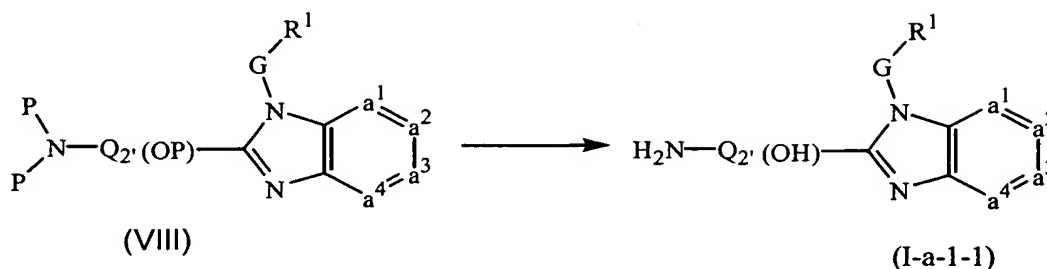
- e) deprotecting an intermediate of formula (VI)



with R^1 , G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $\text{H}_2\text{N}-Q_2$ being defined as Q according to claim 1 provided that both R^6 substituents are hydrogen or R^2 and R^4 are both hydrogen, and P being a protective group;

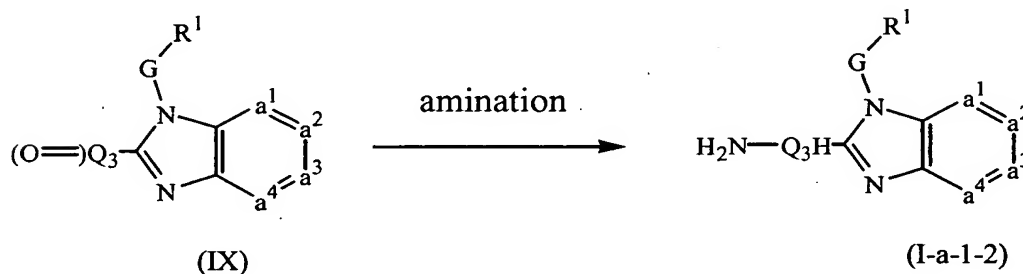
- f) deprotecting an intermediate of formula (VII) or (VIII)





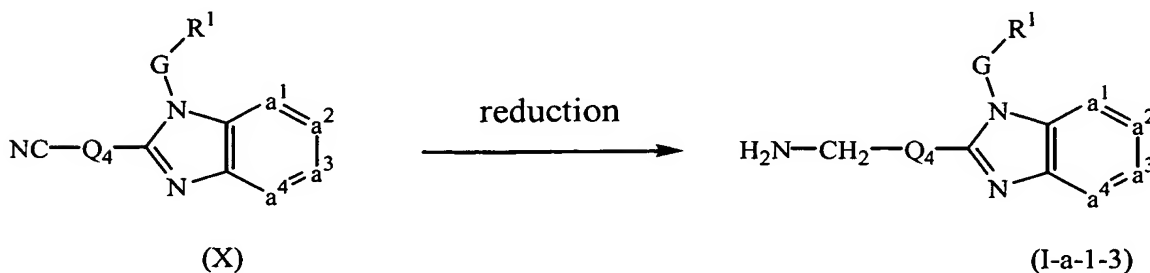
with R¹, G, and -a¹=a²-a³=a⁴- defined as in claim 1, H-Q_{1'}(OH) being defined as Q according to claim 1 provided that R² or at least one R⁶ substituent is hydrogen and provided that Q comprises a hydroxy moiety, H₂N-Q_{2'}(OH) being defined as Q according to claim 1 provided that both R⁶ substituents are hydrogen or R² and R⁴ are both hydrogen and provided that Q comprises a hydroxy moiety, and P being a protective group;

g) amination of an intermediate of formula (IX)



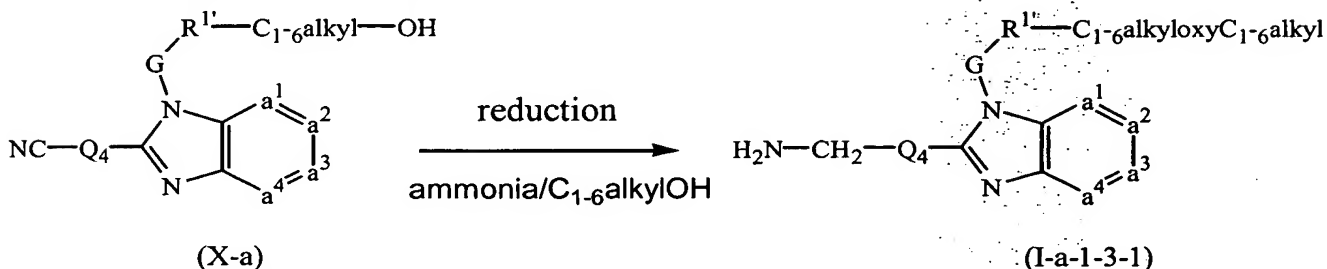
with R¹, G, and -a¹=a²-a³=a⁴- defined as in claim 1, and H₂N-Q₃H being defined as Q according to claim 1 provided that both R⁶ substituents are hydrogen or R² and R⁴ are both hydrogen, and the carbon adjacent to the nitrogen carrying the R⁶, or R² and R⁴ substituents contains at least one hydrogen, in the presence of an amination reagent;

h) reducing an intermediate of formula (X)



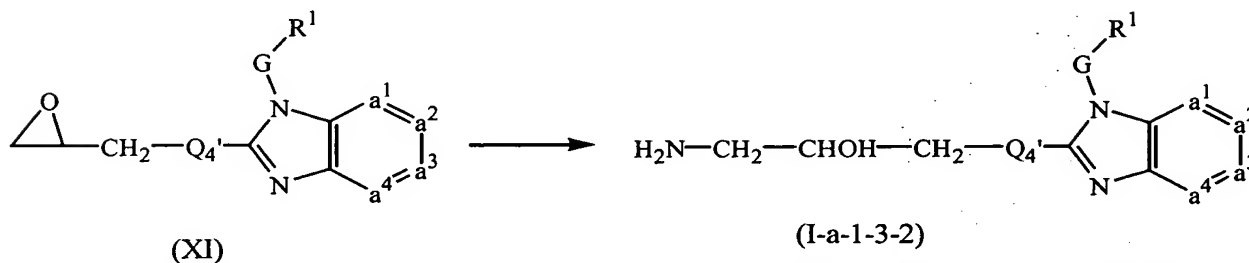
with R^1 , G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $H_2N-CH_2-Q_4$ being defined as Q according to claim 1 provided that Q comprises a $-CH_2-NH_2$ moiety, in the presence of a reducing agent;

- i) reducing an intermediate of formula (X-a)



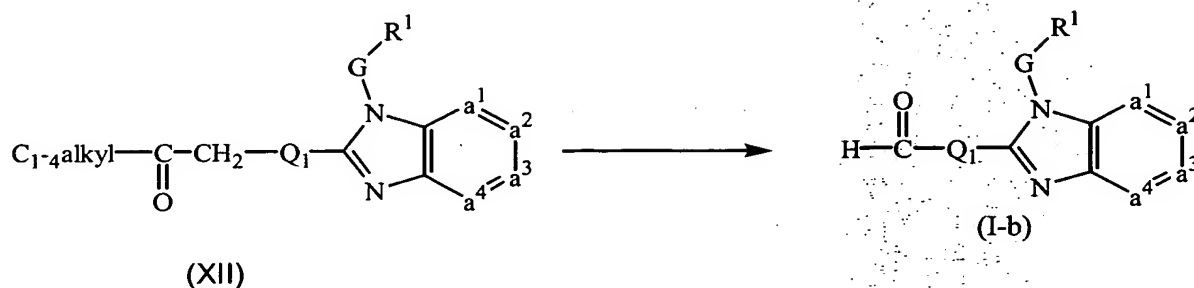
with G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, $H_2N-CH_2-Q_4$ being defined as Q according to claim 1 provided that Q comprises a $-CH_2-NH_2$ moiety, and R^1 being defined as R^1 according to claim 1 provided that it comprises at least one substituent, in the presence of a reducing agent and solvent;

- j) amination of an intermediate of formula (XI)



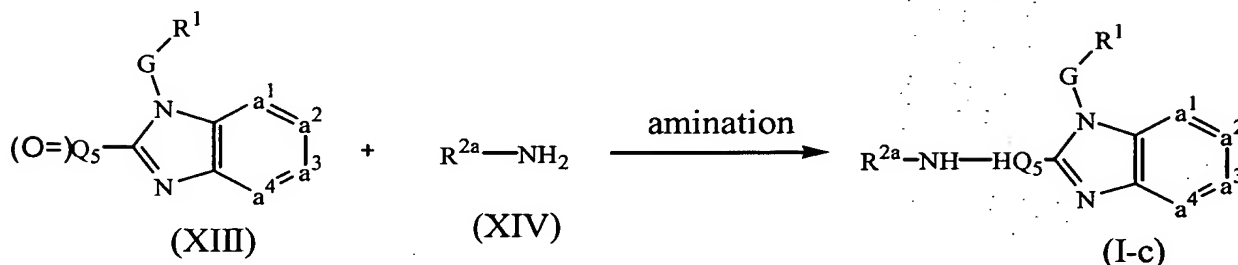
with R^1 , G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $H_2N-CH_2-CHOH-CH_2-Q_4'$ being defined as Q according to claim 1 provided that Q comprises a $CH_2-CHOH-CH_2-NH_2$ moiety, in the presence of an amination reagent;

- k) reacting an intermediate of formula (XII) with formic acid, formamide and ammonia



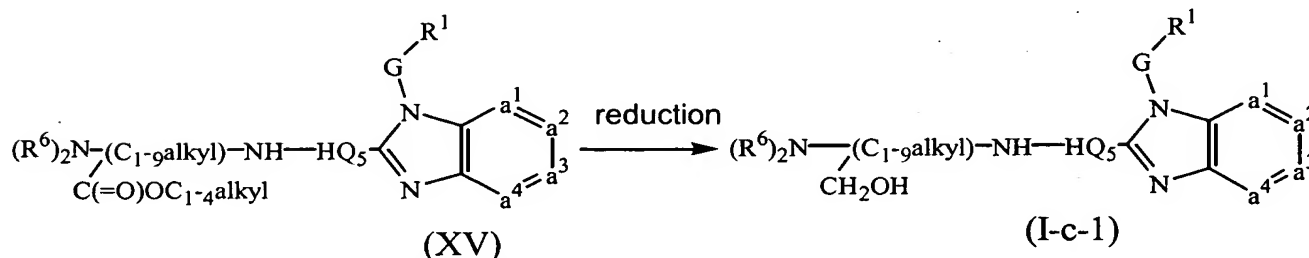
with R¹, G, and -a¹=a²-a³=a⁴- defined as in claim 1, and H-C(=O)-Q₁ being defined as Q according to claim 1 provided that R² or at least one R⁶ substituent is formyl;

- l) amination of an intermediate of formula (XIII) by reaction with an intermediate of formula (XIV)



with R¹, G, and -a¹=a²-a³=a⁴- defined as in claim 1, and R^{2a}-NH-HQ₅ being defined as Q according to claim 1 provided that R² is other than hydrogen and is represented by R^{2a}, R⁴ is hydrogen, and the carbon atom adjacent to the nitrogen atom carrying the R² and R⁴ substituents, carries also at least one hydrogen atom, in the presence of a reducing agent;

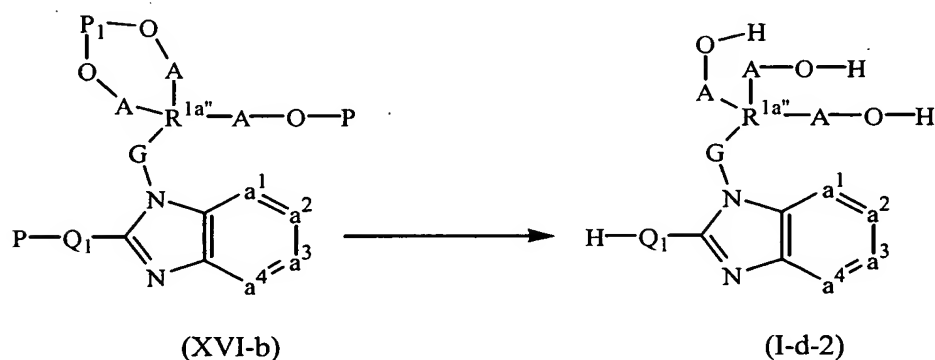
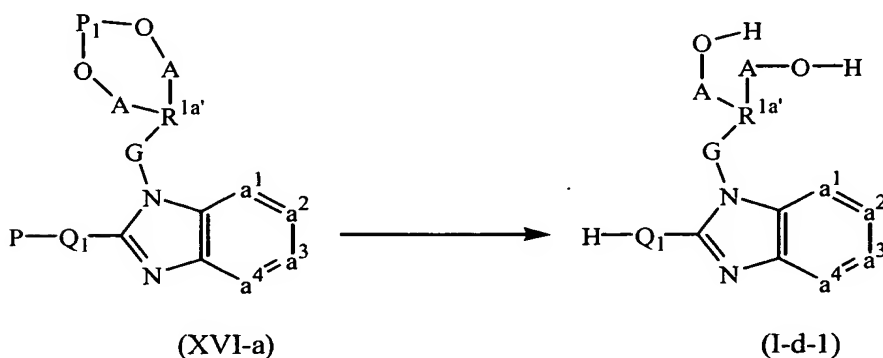
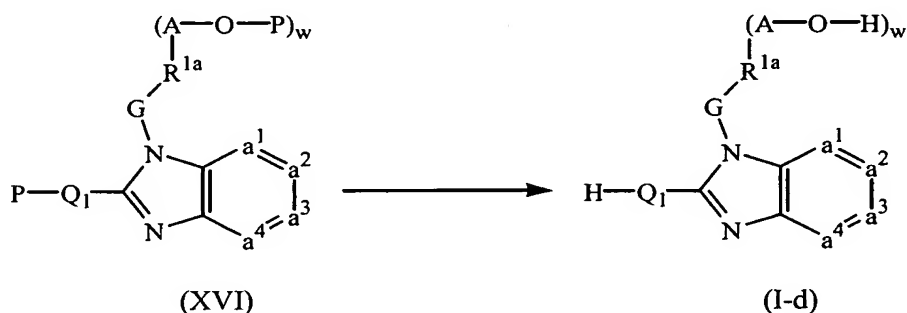
- m) reducing an intermediate of formula (XV)



with R¹, G, and -a¹=a²-a³=a⁴- defined as in claim 1, and (R⁶)₂N-[(C₁₋₉alkyl)CH₂OH]-NH-HQ₅ being defined as Q according to claim 1 provided

that R^2 is other than hydrogen and is represented by C_{1-10} alkyl substituted with $N(R_6)_2$ and with hydroxy, and the carbon atom carrying the hydroxy, carries also two hydrogen atoms, and provided that R^4 is hydrogen, and the carbon atom adjacent to the nitrogen atom carrying the R^2 and R^4 substituents, carries also at least one hydrogen atom, with a reducing agent;

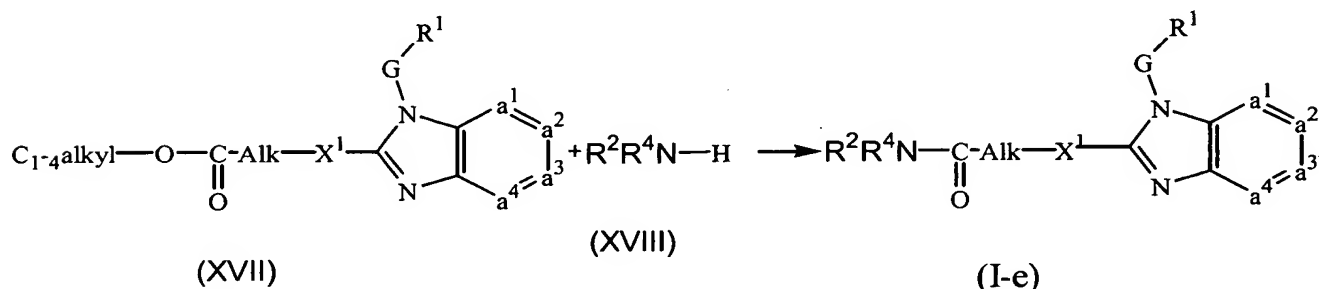
n) deprotecting an intermediate of formula (XVI), (XVI-a) or (XVI-b)



with G , and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $H-Q_1$ being defined as Q according to claim 1 provided that R^2 or at least one R^6 substituent is

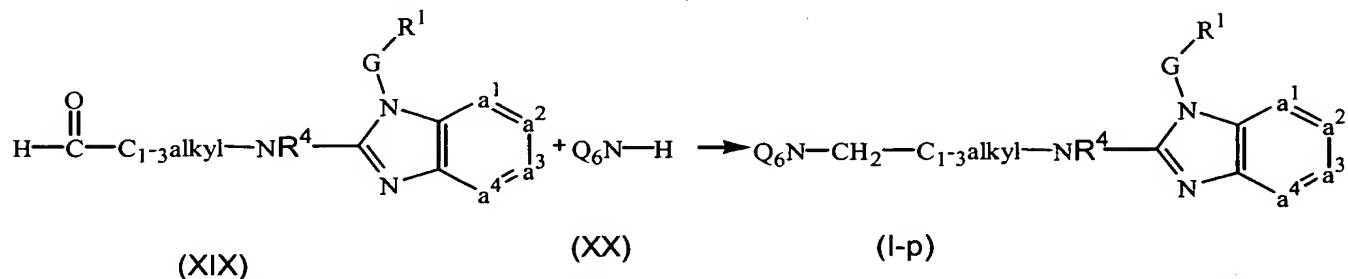
hydrogen, and $R^{1a}-(A-O-H)_w$, $R^{1a'}-(A-O-H)_2$ and $R^{1a''}-(A-O-H)_3$ being defined as R^1 according to claim 1 provided that R^1 is substituted with hydroxy, hydroxy C_{1-6} alkyl, or $HO(-CH_2-CH_2-O)_n-$, with w being an integer from 1 to 4 and P or P_1 being a protecting group, with an acid;

- o) amination of an intermediate of formula (XVII)



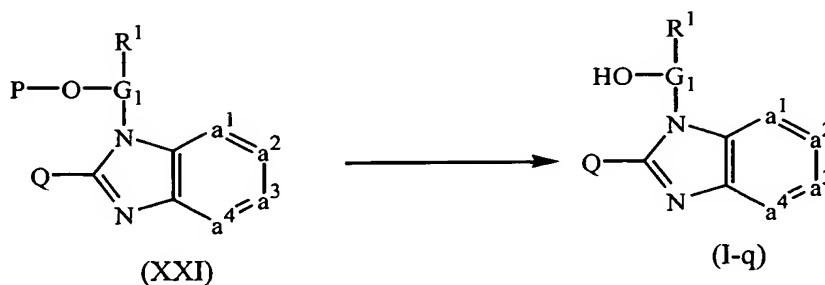
with R^1 , G , $-a^1=a^2-a^3=a^4-$, Alk , X^1 , R^2 and R^4 defined as in claim 1, in the presence of an amination agent;

- p) amination of an intermediate of formula (XIX)



with R^1 , G , and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $\text{Q}_6\text{N}-\text{CH}_2-\text{C}_{1-3}\text{alkyl}-\text{NR}^4$ being defined as Q according to claim 1 provided that in the definition of Q , X^2 is $\text{C}_{2-4}\text{alkyl}-\text{NR}^4$, in the presence of an amination agent;

- q) deprotecting an intermediate of formula (XXI)



with R^1 , Q, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $HO-G_1$ being defined as G according to claim 1 provided that G is substituted with hydroxy or $HO-(CH_2CH_2O-)_n$; and

- r) reducing an intermediate of formula (XXII)



with R^1 , Q, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $H-G_2-OH$ being defined as G according to claim 1 provided that G is substituted with hydroxy and the carbon atom carrying the hydroxy substituent carries also at least one hydrogen, in the presence of a reducing agent.

Claims 16 to 17 (*cancelled*)

18. (*currently amended*) The process of claim 15, further comprising the step of converting compound of formula ~~(I²)~~ (I), stereochemically isomeric forms, metal complexes, quaternary amines or *N*-oxide forms thereof, into a therapeutically active non-toxic acid addition salt by treatment with an acid.

19. (*currently amended*) The process of claim 15, further comprising the step of converting compound of formula ~~(I²)~~ (I), stereochemically isomeric forms, metal complexes, quaternary amines or *N*-oxide forms thereof, into a therapeutically active non-toxic base addition salt by treatment with alkali.

20. *(currently amended)* The process of claim 15, further comprising the step of converting the acid addition salt form of compound of formula ~~(I^a)~~ (I), or stereochemically isomeric forms, thereof, into the free base by treatment with alkali.
21. *(currently amended)* The process of claim 15, further comprising the step of converting the base addition salt form of compound of formula ~~(I^a)~~ (I), or stereochemically isomeric forms, thereof, into the free acid by treatment with acid.
22. *(currently amended)* The process of claim 15, further comprising the step of converting said compound of formula ~~(I^a)~~ (I), or stereochemically isomeric form, into a different form of compound of formula ~~(I^a)~~ (I), stereochemically isomeric form, metal complex, quaternary amine or *N*-oxide form thereof.
23. *(previously presented)* A compound according to claim 1, wherein said compound is *N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-3-[(2-methoxyethoxy)(6-methyl-2-pyridinyl)methyl]-7-methyl-3*H*-imidazo[4,5-*b*]pyridin-2-amine.
24. *(previously presented)* A compound according to claim 1, wherein said compound is 1-phenyl-2-[2-(piperidin-4-ylamino)-imidazo[4,5-*b*]pyridin-3-yl]-ethanol.
25. *(previously presented)* A compound according to claim 1, wherein said compound is 1-phenyl-2-(2-piperidin-4-ylmethyl-imidazo[4,5-*b*]pyridin-3-yl)-ethanol.